

IN THE CLAIMS:

1-76. (CANCELLED)

77. (Previously Presented) A device to orientate a body with respect to a surface spaced-apart from said body, said device comprising:

a flexure system; and

a body coupled to said flexure system, with said flexure system adapted to position said body in a desired orientation with respect to said surface and maintain said orientation in response to a force being exerted upon said body.

78. (Previously Presented) The device as recited in claim 77 wherein said flexure system includes a first flexure member defining a first axis of rotation and a second flexure member defining a second axis of rotation, with said body being coupled to said flexure system to rotate about said first and second axes in response to contact with said surface, said first axis extending transversely to said second axis, wherein movement of said body about said first axis is decoupled from movement of said body about said second axis.

79. (Previously Presented) The device as recited in claim 78 wherein said first axis is spaced-apart from said first flexure member and said second axis is spaced-apart from said second flexure member.

80. (Currently Amended) The device as recited in claim 78 wherein said first flexure member further includes

a mount, a pair of spaced-apart braces, a first flexure arm connected between said mount and one of said pair of spaced-apart braces, a second flexure arm connected between said mount and one of said pair of spaced-apart braces disposed opposite to said first flexure arm, said first flexure arm including a first rigid body wherein a first flexure joint is disposed between said mount and said first rigid body, and a second flexure joint is disposed between said first rigid body and ~~brace~~ said one of said pair of spaced-apart braces, with said first and second flexure joints providing motion to said first rigid body, said second flexure arm including a second rigid body wherein a third flexure joint is disposed between said mount and said second rigid body and a fourth flexure joint is disposed between said second rigid body and ~~brace~~ said one of said pair of spaced-apart braces disposed opposite to said first flexure arm, with said third and fourth flexure joints providing motion to said second rigid body.

81. (Currently Amended) The device as recited in claim 78 wherein said first flexure member further includes a mount, a pair of spaced-apart braces, a first flexure arm connected between said mount and one of said pair of spaced-apart braces, a second flexure arm connected between said mount and one of said pair of spaced-apart braces disposed opposite to said first flexure arm, said first flexure arm including a first flexure region disposed between said mount and ~~brace~~ said one of said pair of spaced-apart braces, wherein said first flexure region further includes two flexure joints and a first rigid body, said second flexure arm including a second flexure region disposed between said mount and ~~brace~~ said one of said pair

of spaced-apart braces disposed opposite to said first flexure arm, wherein said second flexure region further includes two flexure joints and a second rigid body.

82. (Previously Presented) The device as recited in claim 78 wherein said first flexure member is coupled to said second flexure member.

83. (Previously Presented) The device as recited in claim 78 wherein said flexure system comprises eight distinct joints, said joints spaced-apart from a pivot point defined by an intersection of said first axis and said second axis.

84. (Previously Presented) The device as recited in claim 83 wherein said flexure system includes four bar-linkages coupled together to pivot about said pivot point.

85. (Previously Presented) The device as recited in claim 80 wherein said mount comprises a through-hole for penetration of a curing light.

86. (Previously Presented) The device as recited in claim 77 wherein said flexure system further comprises a plurality of piezo actuators attached to apply a force to rotate said body.

87-103. (CANCELLED)

104. (Previously Presented) The device as recited in claim 77 wherein said flexure system defines first and second axes of rotation, with said body being coupled to

said flexure system to rotate about said first and second axes in response to said force, said force resulting from contact with a fluid material being compressed between said body and said surface, said first axis extending transversely to said second axis.

105. (Previously Presented) The device as recited in claim 77 wherein said flexure system comprises a first flexure member and a second flexure member, wherein a fluid material compressed between said body and said surface exerts said force.

106. (Previously Presented) A device to orientate a body with respect to a surface spaced-apart from said body, said device comprising:

a flexure system, said flexure system comprising a first flexure member defining a first axis of rotation and a second flexure member defining a second axis of rotation, said first axis extending transversely to said second axis; and

a body coupled to said flexure system, with said flexure system adapted to rotate said body about said first and second axes to position said body in a desired orientation with respect to said surface and maintain said orientation in response to a force being exerted upon said body, said force resulting from contact with a fluid material being compressed between said body and said surface, wherein movement of said body about said first axis is decoupled from movement of said body about said second axis.

107. (Previously Presented) The device as recited in claim 106 wherein said first axis is spaced-apart from said first flexure member and said second axis is spaced-apart from said second flexure member.

108. (Currently Amended) The device as recited in claim 106 wherein said first flexure member further includes a mount, a pair of spaced-apart braces, a first flexure arm connected between said mount and one of said pair of spaced-apart braces, a second flexure arm connected between said mount and one of said pair of spaced-apart braces disposed opposite to said first flexure arm, said first flexure arm including a first rigid body wherein a first flexure joint is disposed between said mount and said first rigid body, and a second flexure joint is disposed between said first rigid body and brace said one of said pair of spaced-apart braces, with said first and second flexure joints providing motion to said first rigid body, said second flexure arm including a second rigid body wherein a third flexure joint is disposed between said mount and said second rigid body and a fourth flexure joint is disposed between said second rigid body and brace said one of said pair of spaced-apart braces disposed opposite to said first flexure arm, with said third and fourth flexure joints providing motion to said second rigid body.

109. (Currently Amended) The device as recited in claim 106 wherein said first flexure member further includes a mount, a pair of spaced-apart braces, a first flexure arm connected between said mount and one of said pair of spaced-apart braces, a second flexure arm connected between said mount and one of said pair of spaced-apart

braces disposed opposite to said first flexure arm, said first flexure arm including a first flexure region disposed between said mount and braee said one of said pair of spaced-apart braces, wherein said first flexure region further includes two flexure joints and a first rigid body, said second flexure arm including a second flexure region disposed between said mount and braee said one of said pair of spaced-apart braces disposed opposite to said first flexure arm, wherein said second flexure region further includes two flexure joints and a second rigid body.

110. (Previously Presented) The device as recited in claim 106 wherein said first flexure member is coupled to said second flexure member.

111. (Previously Presented) The device as recited in claim 106 wherein said flexure system comprises eight distinct joints, said joints spaced-apart from a pivot point defined by an intersection of said first axis and said second axis.

112. (Previously Presented) The device as recited in claim 111 wherein said flexure system includes four bar-linkages coupled together to pivot about said pivot point.

113. (Previously Presented) The device as recited in claim 108 wherein said mount comprises a through-hole for penetration of a curing light.

114. (Previously Presented) The device as recited in claim 106 wherein said flexure system further comprises a

plurality of piezo actuators attached to apply a force to rotate said body.

115. (Previously Presented) A device to orientate a body with respect to a surface spaced-apart from said body, said device comprising:

a flexure system, said flexure system comprising a first flexure member defining a first axis of rotation and a second flexure member defining a second axis of rotation, said first axis extending transversely to said second axis, with said first axis being spaced-apart from said first flexure member and said second axis being spaced-apart from said second flexure member; and

a body coupled to said flexure system, with said flexure system adapted to rotate said body about said first and second axes to position said body in a desired orientation with respect to said surface and maintain said orientation in response to a force being exerted upon said body by contact with said surface, wherein movement of said body about said first axis is decoupled from movement of said body about said second axis.

116. (Currently Amended) The device as recited in claim 115 wherein said first flexure member further includes a mount, a pair of spaced-apart braces, a first flexure arm connected between said mount and one of said pair of spaced-apart braces, a second flexure arm connected between said mount and one of said pair of spaced-apart braces disposed opposite to said first flexure arm, said first flexure arm including a first rigid body wherein a first flexure joint is disposed between said mount and said first rigid body, and a second flexure joint is disposed

between said first rigid body and ~~said brace~~ said one of said pair of spaced-apart braces, with said first and second flexure joints providing motion to said first rigid body, said second flexure arm including a second rigid body wherein a third flexure joint is disposed between said mount and said second rigid body and a fourth flexure joint is disposed between said second rigid body and ~~brace~~ said one of said pair of spaced-apart braces disposed opposite to said first flexure arm, with said third and fourth flexure joints providing motion to said second rigid body.

117. (Currently Amended) The device as recited in claim 115 wherein said first flexure member further includes a mount, a pair of spaced-apart braces, a first flexure arm connected between said mount and one of said pair of spaced-apart braces, a second flexure arm connected between said mount and one of said pair of spaced-apart braces disposed opposite to said first flexure arm, said first flexure arm including a first flexure region disposed between said mount and ~~brace~~ said one of said pair of spaced-apart braces, wherein said first flexure region further includes two flexure joints and a first rigid body, said second flexure arm including a second flexure region disposed between said mount and ~~brace~~ said one of said pair of spaced-apart braces disposed opposite to said first flexure arm, wherein said second flexure region further includes two flexure joints and a second rigid body.

118. (Previously Presented) The device as recited in claim 115 wherein said first flexure member is coupled to said second flexure member.

10

119. (Previously Presented) The device as recited in claim 115 wherein a fluid material compressed between said body and said surface exerts said force.

120. (Previously Presented) The device as recited in claim 115 wherein said flexure system comprises eight distinct joints, said joints spaced-apart from a pivot point defined by an intersection of said first axis and said second axis.

////

////

////

////

////

////

////

////

////

////

////

////

////

////

////

////

////

////

////

////

////

////

////

////